

REMARKS

INTRODUCTION

In accordance with the foregoing, claim 12 has been amended. Claims 17-23 have been cancelled. Claims 1, 3, 4, 7-9, 11, 12, 15 and 16 are pending and under consideration.

EXAMINER PHONE CALL

The Applicants are appreciative of the brief telephonic conversation with the Examiner on February 3, 2010, in which the Examiner and the Applicants' representative discussed how to clarify the claims to overcome the obviousness rejection, particularly regarding the blade avoiding receiving heat generated from current applied to the coils.

CLAIM REJECTIONS

Claims 1, 3, 7, 9, 11, 15 and 17-23 were rejected under 35 USC 103(a) as being unpatentable over Van Rosmalen et al. (US 6,130,418) (hereinafter "Van Rosmalen") in view of Nagasato et al. (US 6,181,670) (hereinafter Nagasato").

Claims 4, 8, 12 and 16 were rejected under 35 USC 103(a) as being unpatentable over Van Rosmalen in view of Nagasato and further in view of Choi (US 2003/0198148) (hereinafter "Choi").

Claims 1, 3, 4, 7 and 8

Claim 1 recites: "...a focusing coil member and a tracking coil member installed on the base, separated from each other... wherein the focusing coil member, the tracking coil member and the single magnet member are installed on one side of the objective lens."

As shown above, it is apparent from the phrase recited in claim 1 of "the focusing coil member, the tracking coil member and the single magnet member are installed on one side of the objective lens" that the actuator in an asymmetrical relationship with respect to the objective lens.

Also, in the present invention as recited in claim 1, it is clear from the phrases of "a blade with an objective lens" and "a focusing coil member and a tracking coil member installed on the base" that the blade can avoid receiving heat generated from current applied to the coil members.

These features of claim 1 were rejected based on a combination of Van Rosmalen and Nagasato.

Van Rosmalen discusses an asymmetrical optical pickup actuator in which a focus coil 39, tracking coils 41 and a main lens 15 are carried by a movable part 35 of the optical pickup actuator and a single permanent magnet 45 is carried by a stationary part 33 of the optical pickup actuator.

However, Van Rosmalen does not suggest that the focus coil 39 and the tracking coils 41 are installed on a base, while the magnet 45 is installed on a blade (or the holder). The Examiner indicates that Nagasato makes up for the deficiencies in Van Rosmalen, alleging that "[i]t would have been obvious to one of ordinary skill in the art at the time of the invention to include the concept of the parts arranged as taught by Nagasato et al. into the system of Van Rosmalen et al. The motivation would be for an obvious rearrangement of parts to serve the same purpose."

However, in contrast to Van Rosmalen, it is respectfully noted that Nagasato discusses a **symmetrical** optical pickup actuator in which the coils 112, 114 are disposed on base block 8, and the magnets 5a-d, 116 and 118 are disposed on a lens holder.

Due to the non-asymmetrical relationship of the magnets 116, 118 in relation to the coils 112, 114, Nagasato and Van Rosmalen do not function to combine in a manner that would have been suggested to one of ordinary skill in the art. Combining Van Rosmalen and Nagasato do not suggest an asymmetrical arrangement of the focusing and tracking coils and the magnet in relation to the lens.

Further, in claim 1 the blade on which the single magnet member is installed is not in direct communication with the focusing coil and the tracking coil because the latter are installed on the base which prevents having the blade receive heat generated from current applied to the coil members.

These technical features and advantages of the present invention as recited in claim 1 are discussed in the specification of the present application in greater detail. For example, as discussed at paragraph [0010], one of the problems with a conventional (e.g., Van Rosmalen) asymmetric optical pick actuator is that since the coil, particularly the focusing coil, is directly in contact with the blade in which the objective lens is mounted, heat generated by applying current to the coils is directly transferred to the blade and the objective lens, thereby reducing the rigidity of the blade. Thus, the performance of a conventional design of the asymmetrical optical pickup actuator is deteriorated, resulting in the control performance being changed and the objective lens being damaged.

Paragraphs [0014]-[0016] further indicate problems with the structure of the conventional asymmetrical optical pickup actuator. For example, when the coils are installed on the movable part, a plurality of components, for example, a printed circuit board and the wires for electrical connection, must additionally be installed on the blade to apply current to the coils, which thus requires additional soldering.

Thus, as discussed at paragraphs [0019] and [0054] of the present application, for example, because the coils are separated from the moving unit that holds the objective lens, the performance of the moving unit will not be reduced due to heat. Further, as discussed at paragraph [0056], since components for electrical connection and current driving are removed from the moving unit and instead installed in the base, and a process for electrically connecting the components is performed in the base, the manufacture of the optical pickup actuator is easier and the defect rate is able to be reduced.

In addition it is respectfully submitted that combining Van Rosmalen and Nagasato would not result in an obvious rearrangement of parts to serve the same purpose, particularly due to the asymmetrical relationship of the parts in Van Rosmalen and the symmetrical relationship of the parts in Nagasato.

Claims 3, 4, 7 and 8 depend on claim 1 and are therefore believed to be allowable for at least the foregoing reason.

Withdrawal of the foregoing rejections is requested.

Claims 9, 11, 12, 15 and 16

Claim 9 recites: "...a focusing coil member and a tracking coil member installed on the base, separated from each other... wherein the focusing coil member, the tracking coil member and the single magnet member are installed on one side of the objective lens."

Similar to the argument for claim 1, it is respectfully submitted that none of the relied upon references discuss these features of claim 9, taken alone or in combination.

Claims 11, 12, 15 and 16 depend on claim 9 and are therefore believed to be allowable for at least the foregoing reason. Claim 12 has been amended to change its dependency from cancelled claim 10 to claim 11.

Withdrawal of the foregoing rejections is requested.

CONCLUSION

There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.

Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

STAAS & HALSEY LLP

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By: Gregory W. Harper
Gregory W. Harper
Registration No. 55,248

1201 New York Avenue, N.W., 7th Floor
Washington, D.C. 20005
Telephone: (202) 434-1500
Facsimile: (202) 434-1501